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10/812,207

03/29/2004

Earl T. Cohen

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08/09/2007

THE LAW OFFICE OF KIRK D. WILLIAMS

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EXAMINER

VU, THONG H

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/812,207

Applicant(s)

COHEN ET AL.

Examiner

Thong H. Vu

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>1/06</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Claims 1-27 are pending.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Distributed an expandable set of queues use in resequencer and reassembly mechanism".

Claim Objections

3. Claims 1,9,13,20 are objected to because of the following informalities: The independent claims do not mention to a new queues added and the ordered list or queues which are the key of invention. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 1-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Negative Limitations

The current view of the courts is that there is nothing inherently ambiguous or uncertain about a negative limitation. So long as the boundaries of the patent protection sought are set forth definitely, albeit negatively, the claim complies with the requirements of 35 U.S.C. 112, second paragraph. Some older cases were critical of negative limitations because they tended to define the invention in terms of what it was not, rather than pointing out the invention. Thus, the court observed that the limitation "R is an alkenyl radical other than 2-butenyl and 2,4-pentadienyl" was a negative limitation that rendered the claim indefinite because it was an attempt to claim the invention by excluding what the

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inventors did not invent rather than distinctly and particularly pointing out what they did invent. In re Schechter, 205 F.2d 185, 98 USPQ 144 (CCPA 1953).

A claim which recited the limitation "said homopolymer being free from the proteins, soaps, resins, and sugars present in natural Hevea rubber" in order to exclude the characteristics of the prior art product, was considered definite because each recited limitation was definite. In re Wakefield, 422 F.2d 897, 899, 904, 164 USPQ 636, 638, 641 (CCPA 1970). In addition, the court found that the negative limitation "incapable of forming a dye with said oxidized developing agent" was definite because the boundaries of the patent protection sought were clear. In re Barr, 444 F.2d 588, 170 USPQ 330 (CCPA 1971).

Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. See In re Johnson, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."). See also Ex parte Grasselli, 231 USPQ 393 (Bd. App. 1983), aff'd mem., 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Note that a lack of literal basis in the specification for a negative limitation may not be sufficient to establish a prima facie case for lack of descriptive support. Ex parte Parks, 30 USPQ2d 1234, 1236 (Bd. Pat. App. & Inter. 1993). See MPEP § 2163 - § 2163.07(b) for a discussion of the written description requirement of 35 U.S.C. 112, first paragraph.

Claims 1-27 are provides for the use of negative limitations, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 1-27 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thibodeau et al [Thibodeau 2003/00112757 A1] in view of Khotimsky et al [Khotimsky, 6,788,686 B1].

5. As per claim 13, Thibodeau discloses An apparatus for reassembly of a packet, the packet when reassembled includes a plurality of packet fragments with each packet fragment identified with a position within the packet, the apparatus comprising:

- a plurality of reassembly queues [Thibodeau, a set of queues, 0050];
 - a reassembly mechanism [Thibodeau, reassembly module 404, 0049]; and
 - a distributor configured to acquire a particular packet fragment of the plurality of packet fragments and to identify a particular queue of the plurality of reassembly queues [Thibodeau, Pointer manager, 0050-0051] such that **no** already queued packet fragment in the particular queue comes after said particular packet fragment in the packet (i.e.: priority queue), wherein said identifying the particular queue includes checking, at least when the particular queue is **not** empty, that the particular queue does **not** include a packet fragment which comes after said particular packet fragment in the packet [Thibodeau, the queues with priority (or the particular queue) and revised header, 0050; the priority queue will send packet immediately and not include the packet fragment or cell is sent after that or every time if cell are available, 0053];
- wherein the distributor is configured to cause said particular packet fragment to be enqueued at the end of the particular queue [Thibodeau,0051];

wherein the distributor is configured to update a data structure to include an indication of the particular queue in relation to the position of said particular packet fragment in the packet [Thibodeau, update enqueue, 0051]; and

However Thibodeau does not explicitly detail

wherein the distributor is configured to identify when all packet fragments of the packet have been received and in response, to provide the reassembly mechanism with indications of the queues of the plurality of reassembly queues containing packet fragments of the packet and their order corresponding to that of the order of the plurality of packet fragments in the packet; and wherein the reassembly mechanism is configured to retrieve the plurality of packet fragments from the plurality of resequencing queues and reassemble the plurality of packet fragments to produce the packet.

Khotimsky discloses a method of maintaining packet order in multipath transmission systems using a resequencer (or multiplexor) [Khotimsky, col 4 lines 1-10] and a state-based re-assembly scheme which can correctly order the packets [Khotimsky, col 12 lines 25-40] and discard the packet if the arrival is late [Khotimsky, col 14 lines 1-8]

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the a resequencer (or multiplexor) and a state-based re-assembly scheme which can correctly order the packets as taught by Khotimsky into the Thibodeau's apparatus in order to utilize the reassembly mechanism/module in process to reassemble a series of cell constitutes a packet and identify the queue [Thibodeau, 0050].

Doing so would provide a basis for conveying the relative path ordering which increases the range of the packet block enumeration, the robustness of the method can be adjusted to an arbitrary level of packet loss tolerance.

6. As per claim 14, Thibodeau-Khotimsky disclose the reassembly mechanism is configured to retrieve the plurality of packet fragments from the plurality of resequencing queues in their respective order within the packet [Khotimsky, resequencer, col 4 lines 1-10].

7. As per claim 15, Thibodeau-Khotimsky disclose the distributor is configured to communicate a meta-packet or scorecard including said indications of the queues [Thibodeau, the pointer manager, 0050].

8. As per claim 16, Thibodeau-Khotimsky disclose the distributor is configured to identify that every queue in the plurality of queues already includes a packet fragment corresponding to subsequent position in the packet and in response, causing the plurality of queues to expand in number by adding the particular queue to the plurality of queues [Khotimsky, adding the doubled original range, col 11 lines 63].

9. As per claim 17, Thibodeau-Khotimsky disclose the apparatus is configured to reduce the number of queues in the plurality of queues in response to identifying that the particular queue is empty [Khotimsky, empty queue, col 12 lines 40-52].

10. As per claim 18, Thibodeau-Khotimsky disclose said reducing the number of queues includes removing the particular queue from the plurality of queues as inherent feature of FIFO module 402 [Thibodeau, Fig 4].

11. As per claim 19, Thibodeau-Khotimsky disclose the distributor identifies a same particular queue of the plurality of reassembly queues for at least two of the plurality of packet fragments Thibodeau, identify the queue, 0050].

12. Claims 1-12,20-27 contain the identical limitations set forth in claims 13-19.

Therefore claims 1-12,20-27 are rejected for the same rationale set forth in claims 13-19.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong H. Vu whose telephone number is 571-272-3904. The examiner can normally be reached on 6:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Lynn Feild* can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thong Vu
Primary Examiner

 THONG VU
PRIMARY PATENT EXAMINER